## REMARKS

Claims 1 and 3-9 are pending in the instant application. Claims 1 and 3-9 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Further, claims 1 and 3-9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Ardenkjaer-Larsen (US6,466,814) in view of Pines (US6,426,058). The claims have been amended. Applicants respectfully submit that none of the amendments constitute new mater in contravention of 35 U.S.C. §132. Reconsideration is respectfully requested.

Claims 1 and 3-9 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This rejection is respectfully traversed.

Claim 1 and 9 have been amended to specify that the mixture of step a) includes at least one solvent or a mixture of solvents selected from the specific group of single chain alcohols, glycols, toluene, cyclopentane and methylcyclohexane. By restricting to specific solvents the reference to their properties, i.e. glass forming properties and/or lipophilic properties, is redundant and has been deleted from the claim. Basis for the amendments is found on page 2, last paragraph of the specification (PCT). Applicants respectfully submit that the rejection stands obviated due to the instant amendments. Reconsideration is respectfully requested.

Claims 1 and 3-9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Ardenkjaer-Larsen in view of Pines. This rejection is respectfully traversed.

Ardenkjaer-Larsen discloses in one aspect hyperpolarisation of a gas before, during or after introducing a high T1 agent thereto, and then dissolves this in a physiologically tolerable solvent. There is no suggestion for preparing a mixture of the gas, such as xenon, and solvents prior to the hyperpolarisation. Further, there is no suggestion by Ardenkjaer-Larsen to use the solvents claimed by amended claim 1.

Pines teaches methods in which hyperpolarized noble gases are used to enhance and improve NMR and MRI. In the second aspect of Pines (column 8, lines 51-) a method is disclosed wherein a noble gas can be combined with a fluid to form a mixture which can be delivered to blood or other tissue. The method includes the steps of combining a hyperpolarised gas with a fluid to form a mixture, contacting the mixture with a sample, and scanning the sample by NMR. In another aspect (column 9, lines 30-) a composition is disclosed comprising a hyperpolarized gas dissolved in a liquid carrier. There are several suggestions for such liquid carriers. In theses aspects however, the liquid/fluid is added after hyperpolarization of the gas. In one single sentence, Pines indicates that it may prove advantageous to dissolve the noble gas in a liquid prior to hyperpolarizing the gas. This teaching is however not linked to the teaching about which liquids are suitable for mixing with a hyperpolarized gas to form a mixture that can be delivered to blood or other tissue. Accordingly, there is no teaching of which solvents, or their properties, could be useful in a method of hyperpolarizing xenon, wherein xenon is mixed with the solvent prior to

hyperpolarization. Further, there is no suggestion by Pines to hyperpolarize gases according to the DNP method.

The claimed invention provides an improved method for hyperpolarizing xenon, using specific solvents as additives to dramatically increase the polarization enhancement. The fact is then, that there is nothing predictable about the result, i.e. the increased polarization obtained the claimed method. The technical problem solved by the invention was not understood in the prior art. Thus there is no suggestion in the prior art for solving the problem. Applicants submit that the very realization that xenon gas can be hyperpolarized by first being mixed with specific solvents, which either have good glass forming properties and/or are lipophilic, before being hyperpolarized by the DNP method, is non-obvious, non-trivial, and distinguishes the present invention over the prior art.

Therefore, as none of the cited references, either singly or taken together, disclose, teach, or suggest the instant invention, Applicants respectfully submit that the office has failed to carry its burden to establish a prima facie case of obviousness. As such, the instant invention is patentably distinct over the prior art.

In view of the amendments and remarks hereinabove, Applicants respectfully submit that the instant application, including claims 1 and 3-9, is in condition for allowance. Favorable action thereon is respectfully requested.

Any questions with respect to the foregoing may be directed to Applicants undersigned counsel.

Respectfully submitted,

/Robert F. Chisholm/
Robert F. Chisholm
Reg. No. 39,939

GE Healthcare, Inc.
101 Carnegie Center
Princeton, NJ 08540
Phone (609) 514-6905

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